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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/666,639 | 09/19/2003 | Tamer El-Raghy | DRE-0111 | 8968 |
| 7590 11/12/2004 | | | | |
| Licata & Tyrrell P.C. 66 East Main Street Marlton, NJ 08053 | | EXAMINER DANIELS, MATTHEW J | | |
| | | ART UNIT PAPER NUMBER 1732 | | |

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,639

Applicant(s)

EL-RAGHY ET AL.

Examiner

Matthew J. Daniels

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Applicant is notified that the effective filing date of the referenced International Publication Number by Gromelski (WO 03/051791 A1) for consideration under 35 U.S.C. 102(e) is 18 December 2001.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Gromelski (WIPO Publication WO 03/051791 A1). **As to Claim 1**, Gromelski teaches a glove or condom former (Page 7, Lines 10-12) comprising $M_{n+1}AX_n$ (Page 4, Table 1 and Page 7, Line 3) wherein M is a transition metal selected from scandium, titanium, vanadium, chromium, zirconium, niobium, hafnium, and tantalum, or a mixture thereof (Page 4, Table 1); wherein A is an element selected from aluminium, silicon, gallium, germanium, tin, lead and indium, or a mixture thereof (Page 4, Table 1); wherein X is carbon or nitrogen; and n is 1, 2 or 3 (Page 4, Table 1). **As to Claim 2**, Gromelski

Art Unit: 1732

teaches a glove or condom former where M is titanium, A is selected from silicon, germanium, or aluminium, X is carbon and n is 2 (Page 7, Line 7).

Claim Rejections - 35 USC § 102(e)/103

Claim 3 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gromelski (WIPO Publication WO 03/051791 A1) in view of Applicant's admitted prior art (Pages 1-2 of the Written Description). Gromelski teaches the subject matter of Claims 1 and 2. Gromelski also teaches a method for producing a latex or synthetic polymer glove or condom comprising: (a) dipping the glove or condom former of claim 1 in a liquid latex or synthetic polymer bath (Page 1, Line 13-15); and (c) releasing the formed latex or synthetic polymer glove or condom from the former (Page 1, Line 19-20). Gromelski does not specifically teach (b) allowing the latex or synthetic polymer coating to dry on the former. However, inherently the condom/glove must dry in order for it to be removed from the former. However, in the alternative, it would have been prima facie obvious to allow latex or synthetic polymer coating to dry on a former to produce latex polymer gloves or condoms given Applicant's admitted prior art teaching to do such a drying operation (Page 2, Line 2-5). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to have included a step of allowing the latex or synthetic polymer coating to dry on the former in the method of Gromelski in order to prevent the gloves/condoms being removed from sticking together. Also, allowing the latex to dry will permit the product to be easily removed.

Claim Rejections - 35 USC § 103

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adasch (USPN 5,194,204) in view of Barsoum (J. Am. Ceram. Soc., 79 [7] (1996) 1953-56). **As to Claim 1**, Adasch teaches glove formers (1:27) formed from silicon carbide (SiC) and (1:36-37) aluminum nitride (AlN). Adasch is silent to glove formers comprised of Applicant's composition. Adasch further teaches that a higher thermal conductivity (1:38-40), resistance to corrosion (1:48), and resistance to thermal shock (2:60-64) are desirable properties for glove formers. The examiner takes the position that corrosion and oxidation pertain to the same chemical process. Barsoum teaches (Page 1954, Section V, third paragraph) that it is obvious that Ti_3SiC_2 is not susceptible to thermal shock, and withstands a greater maximum thermal shock than the best thermal shock-resistant ceramics. Barsoum further teaches (Page 1956, Section VIII, first paragraph) that Ti_3SiC_2 is an excellent thermal conductor, it is easily machinable, and oxidation resistant. The references are properly combinable because both pertain to ceramics having high thermal conductivity, and also having resistance to thermal shock and corrosion. The examiner also notes that silicon carbide is a known decomposition product of Ti_3SiC_2 to show that the two materials are closely related. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to use Ti_3SiC_2 as a glove former in view of Adasch's teaching that thermal shock resistance, high thermal conductivity, and corrosion resistance were favorable qualities for a glove former and in view of Barsoum's teaching that Ti_3SiC_2 had all of these qualities. **As to Claim 2**, Adasch and Barsoum teach that which is set forth above in the rejection of Claim 1 under 35 U.S.C. 103(a). Barsoum teaches Ti_3SiC_2 specifically. It would have

Art Unit: 1732

been prima facie obvious to one of ordinary skill in the art at the time of the invention to use Ti_3SiC_2 as a glove former in view of Adasch's teaching that thermal shock resistance, high thermal conductivity, and corrosion resistance were favorable qualities for a glove former and in view of Barsoum's teaching that Ti_3SiC_2 had all of these qualities.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adasch (USPN 5,194,204) in view of Barsoum (J. Am. Ceram. Soc., 79 [7] (1996) 1953-56), and further in view of Hadfield (USPN 1,635,576). Adasch and Barsoum are silent to the specific steps set forth by Applicant in Claim 3. Hadfield teaches a method for producing a latex or synthetic polymer glove comprising: (a) dipping the glove former in a liquid latex or synthetic polymer bath (Page 1, Line 88); (b) allowing the latex or synthetic polymer coating to dry on the former (Page 1, Line 93-94); and (c) releasing the formed latex or synthetic polymer glove from the former (Page 1, Line 57-58). It would have been prima facie obvious to one of ordinary skill in the art to use the method of Hadfield for forming gloves into the apparatus and composition of Adasch and Barsoum because doing so would produce useful gloves that could be sold for significant financial benefit.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Applicant is specifically directed to U.S. Patent Number 5,942,455 by Barsoum et al. Other references cited to show the state of the art at the time of the invention include: Arunajatesan et al (J. Am. Ceram. Soc. 78 [3] (1995) 667-672), Pampuch et al (J. of Materials Synthesis and Processing, 1 [3] (1993) 93-100), Tong et al

Art Unit: 1732

(J. of Materials Science, 30 (1995) 3087-3090), Pampuch et al (J. of the European Ceram. Soc. 5 (1989) 283-287), Morozumi (J. of Materials Science, 20 (1985) 3976-3982), Goto et al (Materials Res. Bull. 22 (1987) 1195-1201), Strife et al (Ceramic Bulletin 67 (1988) 369), Racault et al (J. Materials Science 29 (1994) 3384-3392), Schindler (USPN 3,852,826), McDonald (USPN 5,609,922), Etheredge, III (USPN 5,018,532), Strauss (USPN 5,715,839), and Nakamura (USPN 6,345,394), Barsoum (USPN 5,451,365), Barsoum (USPN 5,942,455), Barsoum (USPN 5,882,561), Barsoum (USPN 6,013,322), Knight (USPN 6,231,969 B1), Knight (USPN 6,497,922 B2), El-Raghy (USPN 6,461,989 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on 8:00 am - 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1732

MJD

11-5-2004



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER